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TITLE : OXIDE MAGNETIC BODY MATERIAL

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ABSTRACT : PURPOSE: To reduce the magnetic loss in the high-frequency band by a method wherein specific amount of CaO and SiO₂ as the sub-components are added to MnZn base ferrite containing Fe₂O₃, ZnO, MnO as the main-components and then specific amount of metallic oxide and specific amount of rare earth metallic oxide are compositely added thereto.

CONSTITUTION: The oxide magnetic body material is a sintered body wherein $53 \leq \text{Fe}_2\text{O}_3 \leq 57 \text{ mol\%}$, $3 \leq \text{ZnO} \leq 9 \text{ mol\%}$ and the residual mol% of MnO as the main-components as well as $0.05 \leq \text{CaO} \leq 0.3 \text{ wt.\%}$, $0.005 \leq \text{SiO}_2 \leq 0.05 \text{ wt.\%}$ as the sub-components are to be contained without fail while at least one or more elements selected from respective 0.01-0.2wt.% of Ta₂O₅, ZrO₂, Ga₂O₃, GeO₂, Cr₂O₃, SbO₃, Al₂O₃, HfO₂, MoO₃, In₂O₃, WO₃, Bi₂O₃, SnO₂ and $0.05 \leq \text{TiO}_2 \leq 0.5 \text{ wt.\%}$ as well as at least one or more elements of the oxide of rare earth metal exceeding 0.005wt.% but not exceeding 0.2wt.% are to be contained. Through these procedures, the title oxide magnetic body material having excellent temperature characteristics can be manufactured at low magnetic loss.

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